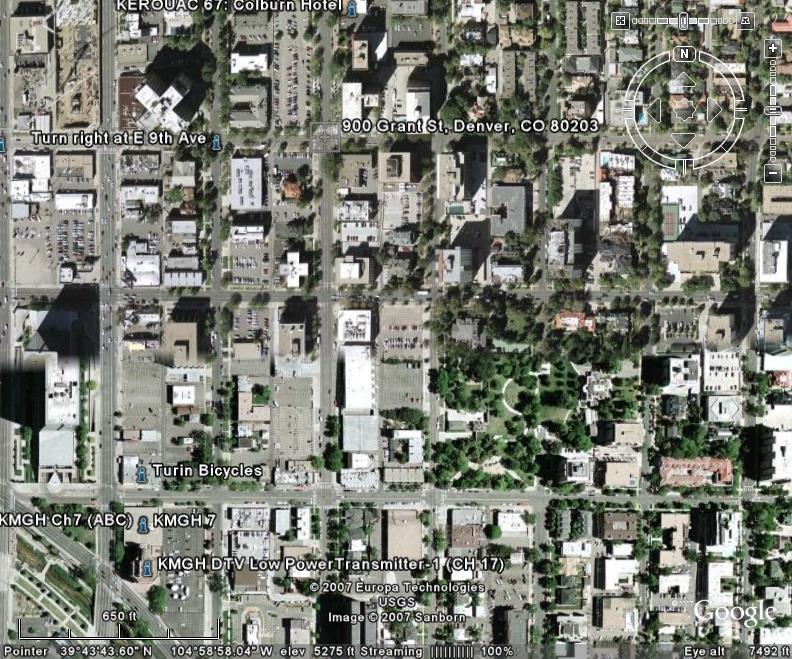
Exploring the World

with Google Earth

Google Earth is a virtual globe that combines satellite imagery, 3D modeling, Google Maps, data from Geographic Information Systems (GIS), and the power of Google search for a comprehensive view of the earth. With Google Earth, the user can zoom into specific locations, change the angle of tilt to see 3D landforms, and show locations such as restaurants, historic sites, and other locations of interest.

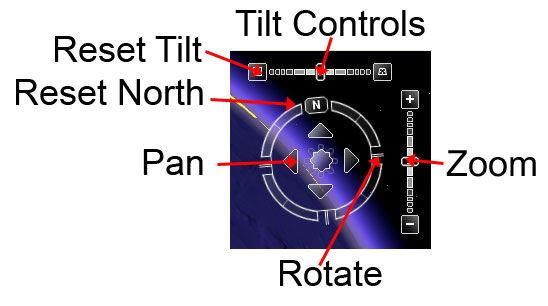
Most of the earth is low resolution imagery, but some places, such as major metropolitan areas, offer much higher resolution.

*High-resolution image of Denver Public Schools and DoTS.*

The images are not in real-time. Most images are two to three years old. Overhead images have been obtained from a variety of sources, including declassified satellite data and commercial aerial imagery.

**Features:**

* Overhead Satellite and Aerial Imagery
* Highway Maps
* Ability to create and save Placemarks and folders
* Integration with Internet resources
* 3D Landforms and 3D Buildings
* Network Connections for real-time data monitoring
* Tools for measuring and creating paths
* Ability to create image overlays
* Access to a community of users who have developed Google Earth applications

**Basic Controls:**

**Zoom** – Sliding the zoom indicator toward the plus sign will bring the view closer to the ground. Sliding it toward the minus will zoom out. Users can also click on either the plus or minus sign to zoom in and out. Also, users can use the mouse wheel to zoom in and out.

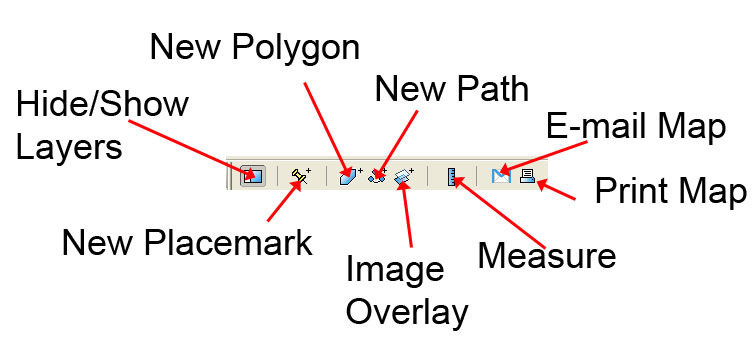
Users can also double-click on a location to move that location to the center of the map and zoom in.

**Rotate** – Users can grab and rotate the ring with the mouse to change the view from north to south, east, or west. Double-click on the N to reset the view to North.

**Pan** – Clicking on these arrows will move the view right or left, up or down. Alternately, users can grab and drag the map to the location they desire.

**Tilt** – Sliding the control to the right with tilt the image in respect to the horizon. Sliding to the left will change back to an overhead view. Double-click on the left icon to reset the tilt to the overhead view. This control is useful for viewing 3D topography.

**Basic Tools:**



**Hide/Show Layers** – toggles between full screen and view of layers on the left side.

**New Placemark** – allows users to mark a location for future reference. Information and links to web pages can be embedded in placemarks.

**New Polygon** – allows users to highlight and area with a shape. The opacity of the area and color can be changed so that details underneath can be viewed.

**New Path** – allows users to mark a path on the route.

**Image Overlay** – allows users to add images to a map. These may be local images or images found on the Internet.

**Measure** – allows users to measure distances between points on the map, either in a straight line or along a path.

**E-mail Map** – allows users to send a picture of that map view e-mail. An e-mail client must be available and configured, such as Microsoft Outlook or Novell Groupwise.

**Print Map** – allows users to print the current map view.

***Searching:***

Users may search (Fly to) using the following parameters:

* Address (street and zip code for US)
* Place Name (eg. Paris, France)
* Keyword(s)
* Latitude/Longitude Coordinates

*Search results depend on the current view.*

**Google Earth Vocabulary:**

**Placemark** – A location in Google Earth

**Tour** – a collection of placemarks in a specific order.

**Layer** – A set of data that is displayed on a map. In Google Earth, these consist of placemarks, overlays, shapes, or paths.

**Static layer** – A set of placemarks or overlays that do not change.

**Dynamic layer** – A set of placemarks overlays that is pulled from an online source. The information in the layer can vary according to context or as the information is updated on the remote server. This is also known as a “Network Link” in Google Earth.

**Overlay** – An image placed on top of a Google Earth map, outside of a placemark.

**Tag** – Tags are similar in function to keywords. The difference is that a keyword is added by the owners of the data before the data is posted, and a tag is added by users as they see the relevance of the data through a process called “tagging.”

**HTML (Hypertext Markup Language)** - This is the basic language of the World Wide Web. HTML codes tell how text, images, and other items should be formatted for web pages.

**XML (Extensible Markup Language)** - This is a method of transferring data from one information source to another. It uses strict rules of formatting, and is often used to produce data seen in web pages.

**Geocoding** – The process of matching data with locations on a map. Data items can be geocoded against street addresses or latitude and longitude coordinates.